

WHAT IS CLAIMED IS:

1. A disc brake for vehicles comprising:
a round disc rotating with a wheel;
pads installed at both sides of said disc for generating frictional force;
5 pincer-shaped calipers supporting said pads;
an electric heat-generating circuit installed within said discs to generate heat
and dry said discs when current flows; and
electromagnetic induction means for generating a current to said electric heat-
generating circuit by using electromagnetic induction via formation of a magnetic field.

10 2. The disc brake as defined in claim 1, wherein said electromagnetic
induction means comprises:

electromagnets, each installed at both prongs of said caliper to allow an N pole
and a S pole to face therebetween, such that when electric power is applied, a magnetic
15 field can be formed in the axial direction of said disc; and

electric power supply means supplying electric power to said electromagnets
for magnetization thereof.

3. The disc brake as defined in claim 2, wherein said electromagnets are
20 evenly distributed at both prongs of said caliper.

4. The disc brake as defined in claim 2, wherein said electromagnets are
so installed as to be automatically magnetized when a wetness measuring sensor
installed inside a brake for measuring wetness discriminates that discs and pads become
25 drenched above a prescribed level.

5. The disc brake as defined in claim 2, wherein said electromagnets are connected to a relay of a wiper so as to be magnetized by operation frequency of said wiper.

5 6. The disc brake as defined in claim 1, wherein an insulating body for insulating said electric heat-generating circuit from a body of said disc is disposed between said disc and said electric heat-generating circuit.

7. The disc brake as defined in claim 1, wherein said electric heat-
10 generating circuit comprises:

at least more than one linear part passing the magnetic field to generate an induced electromotive force so that a current can flow in said circuit;

at least more than one heat-generating part supplied with the current generated by said linear part to generate heat; and

15 a curved part connecting said linear part and said heat-generating part.

8. The disc brake as defined in claim 7, wherein said linear part is radially formed around said disc.

20 9. The disc brake as defined in claim 7, wherein, in case said linear part is plurally formed, linear parts formed toward the outside from the center of said disc and linear parts formed toward the center from the outside of said disc are alternatively and repeatedly constituted.

25 10. The disc brake as defined in claim 7, wherein each linear part is formed

at a prescribed interval therebetween so that no two linear parts that show different directions of current flow under a magnetic field can simultaneously pass the magnetic field.

5 11. The disc brake as defined in claim 7, wherein, in case said linear parts and said heat-generating parts are plurally installed, said linear parts and said heat-generating parts are evenly distributed on said entire disc.

12. The disc brake as defined in claim 7, wherein said heat-generating parts
10 are made of a hot wire material that generates heat when applied with current.

13. The disc brake as defined in claim 7, wherein said curved part is
formed along a concentric circle route toward a circumferential direction of said disc.

15 14. A disc brake, comprising:
a disc configured and dimensioned to rotate with a wheel;
brake pads for generating frictional force during interaction with said disc;
a caliper supporting said pads; and
a heat-generating circuit installed within said discs to generate heat and dry said
20 discs.

15. The brake of claim 14, further comprising an electromagnetic
induction means for generating a current to said heat-generating circuit by using
electromagnetic induction via formation of a magnetic field.

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16. A disc brake, comprising:

a disc brake unit; and

electromagnetic heat-generating circuitry configured and dimensioned to
produce heat within said disc brake unit and dry said disc brake unit when said disc
5 brake unit becomes wet.